CLAIM AMENDMENTS

1. (Currently Amended) A probe for ablating tissue, comprising:

an outer elongate probe body including a distal ablative structure having an open architecture defining an interior space, wherein the ablative structure tapers downward to a distal tip insertable into the ostium of a pulmonary vein;

a lumen extending through the outer probe body, the lumen configured to slidably receive an inner elongate probe body, such that the inner elongate probe body can move independently of the distal ablative structure, the lumen having an exit port out which the inner probe body can extend within the interior space; and

one or more ablative elements mounted to the distal ablative structure, wherein the ablative structure is configured for engaging a portion of ~~a~~ the pulmonary vein just distal to the ostium of the pulmonary vein, so that the one or more ablative elements are arranged to create a circumferential lesion within the pulmonary vein.

2-6. (Cancelled).

7. (Previously Presented) The probe of claim 1, wherein the exit port is proximal to the distal ablative structure.

8. (Currently Amended) A probe assembly for ablating tissue, comprising:

an outer probe including an elongate probe body having a distal ablative structure, a lumen having an exit port, and one or more ablative elements mounted to the distal ablative structure, wherein the ablative structure is configured for engaging a portion of an anatomical vessel just distal to the ostium of the vessel, so that the one or more ablative elements are arranged to create a circumferential lesion within the anatomical vessel,

wherein the ablative structure tapers downward to a distal tip insertable into the ostium of the vessel; and

an inner probe configured to be slidably disposed within the lumen of the outer probe, the inner probe including an elongate probe body having a distal diagnostic structure configured to extend out the exit port, and one or more diagnostic elements mounted to the distal diagnostic structure.

9-13. (Cancelled).

14. (Original) The probe assembly of claim 8, wherein the distal ablative structure is an open structure that forms an interior space, and the distal diagnostic structure is configured to extend within the interior space.

15. (Previously Presented) The probe assembly of claim 8, wherein the anatomical vessel is a pulmonary vein.

16-19. (Cancelled).

20. (Original) The probe assembly of claim 8, wherein the exit port is proximal to the distal ablative structure.

21. (Currently Amended) A medical probe assembly, comprising:

an outer probe including an elongate probe body having a distal open helical structure, a lumen having an exit port, and one or more operative elements mounted to the helical structure, wherein the helical structure has at least two coils configured for contacting tissue within an anatomical vessel; and

an inner probe configured to be slidably disposed within the lumen of the outer probe, the inner probe including an elongate probe body having a distal diagnostic structure configured to extend out the exit port, and one or more diagnostic elements mounted to the distal diagnostic structure, wherein the diagnostic structure comprises at least one curved section configured for contacting the tissue between the two coils.

22. (Previously Presented) The probe assembly of claim 21, wherein the outer probe body is an intravascular catheter body.

23. (Previously Presented) The probe assembly of claim 21, wherein the helical structure is tapered.

24. (Previously Presented) The probe assembly of claim 21, wherein the one or more operative elements comprises one or more ablative elements.

25. (Previously Presented) The probe assembly of claim 21, wherein the anatomical vessel is a pulmonary vein.

26. (Previously Presented) The probe assembly of claim 21, wherein the exit port is proximal to the helical structure.

27. (Previously Presented) A method of creating a circumferential lesion adjacent an anatomical vessel, comprising:

placing an ablation probe within or around an ostium of a vessel, the ablation probe comprising one or more ablative elements;

circumferentially arranging the one or more ablative elements within the vessel;

inserting a diagnostic probe through the ostium of the vessel;

creating a circumferential lesion within or around the ostium of the vessel by energizing the one or more ablative elements; and

measuring diagnostic signals within the vessel with the diagnostic probe.

28. (Original) The method of claim 27, further comprising allowing fluid flow through the vessel while the circumferential lesion is created.

29. (Cancelled).

30. (Original) The method of claim 27, further comprising introducing the diagnostic probe through a lumen within the ablation probe into the vessel.

31. (Original) The method of claim 27, wherein the diagnostic signals are measured subsequent to the creation of the circumferential lesion.

32. (Original) The method of claim 31, wherein the diagnostic signals are also measured prior to the creation of the circumferential lesion.

33-34. (Cancelled).

35. (Original) The method of claim 27, wherein the vessel is a pulmonary vein.

36. (Original) The method of claim 35, wherein the circumferential lesion is created to electrically isolate the pulmonary vein from a left atrium of a heart, and the diagnostic signals are electrophysiology signals.

37. (Previously Presented) A method of electrically isolating a pulmonary vein from the left atrium of a heart, the method comprising:

placing an ablation probe within an ostium of the pulmonary vein, the ablation probe comprising one or more ablative elements;

circumferentially arranging the one or more ablative elements within the pulmonary vein;

inserting a mapping probe through the ostium of the pulmonary vein;

creating a circumferential lesion within the pulmonary vein by energizing the one or more ablative elements; and

measuring electrophysiology signals within the pulmonary vein with the mapping probe.

38. (Original) The method of claim 37, further comprising allowing blood to flow between the left atrium and the pulmonary vein while the circumferential lesion is created.

39-41. (Cancelled).

42. (Previously Presented) The method of claim 37, further comprising introducing the mapping probe through a lumen of the ablation probe into the left atrium of the heart.

43. (Original) The method of claim 37, wherein the electrophysiology signals are measured subsequent to the creation of the circumferential lesion.

44. (Original) The method of claim 43, wherein the electrophysiology signals are also measured prior to the creation of the circumferential lesion.

45-46. (Cancelled).

47. (Previously Presented) The probe assembly of claim 21, wherein the helical structure has proximal, medial, and distal coils configured for contacting tissue within the anatomical vessel, and wherein the diagnostic structure comprises a proximal curved section configured for contacting the tissue between the proximal and medial coils, and a

distal curved section configured for contacting the tissue between the medial and distal coils.

48. (Previously Presented) The probe assembly of claim 47, wherein the proximal and distal curved sections have apexes that point in the same direction away from a longitudinal axis of the outer probe.

49. (Previously Presented) The probe assembly of claim 48, wherein the diagnostic structure comprises a medial curved section having an apex that points in direction towards the longitudinal axis of the outer probe.

50. (Previously Presented) The method of claim 27, wherein the ablation probe includes a distal open helical structure having at least two coils carrying the one or more ablative elements, wherein the diagnostic probe includes a distal diagnostic structure having at least one curved section carrying one or more diagnostic elements, wherein placing the ablation probe within or around the ostium of the vessel comprises contacting tissue within the vessel with the at least two coils, and wherein inserting the diagnostic probe through the ostium of vessel comprises contacting the tissue between the two coils with the at least one curved section.

51. (Previously Presented) The method of claim 27, wherein the ablation probe includes a distal open helical structure having proximal, medial, and distal coils carrying the one or more ablative elements, wherein the diagnostic structure comprises a proximal and distal curved sections carrying the one or more diagnostic elements, wherein placing the ablation probe within or around the ostium of the vessel comprises contacting tissue within the vessel with the at proximal, medial, and distal coils, and wherein inserting the

diagnostic probe through the ostium of vessel comprises contacting the tissue between the proximal and medial coils with the proximal curved section, and contacting the tissue between the medial and distal coils with the distal curved section.

52. (Previously Presented) The method of claim 51, wherein the proximal and distal curved sections have apexes that point in the same direction away from a longitudinal axis of the ablation probe.

53. (Previously Presented) The method of claim 52, wherein the diagnostic structure comprises a medial curved section having an apex that points in direction towards the longitudinal axis of the ablation probe.

54. (Previously Presented) The method of claim 27, wherein the diagnostic probe is disposed within the vessel while the one or more ablative elements are within the vessel.

55. (Previously Presented) The method of claim 37, wherein the ablation probe includes a distal open helical structure having at least two coils carrying the one or more ablative elements, wherein the mapping probe includes a distal mapping structure having at least one curved section carrying one or more mapping elements, wherein placing the ablation probe within or around the ostium of the pulmonary vein comprises contacting tissue within the vessel with the at least two coils, and wherein inserting the mapping probe through the ostium of pulmonary vein comprises contacting the tissue between the two coils with the at least one curved section.

56. (Previously Presented) The method of claim 37, wherein the ablation probe includes a distal open helical structure having proximal, medial, and distal coils carrying the one or more ablative elements, wherein the mapping structure comprises a proximal and

distal curved sections carrying the one or more mapping elements, wherein placing the ablation probe within or around the ostium of the pulmonary vein comprises contacting tissue within the pulmonary vein with the at proximal, medial, and distal coils, and wherein inserting the mapping probe through the ostium of pulmonary vein comprises contacting the tissue between the proximal and medial coils with the proximal curved section, and contacting the tissue between the medial and distal coils with the distal curved section.

57. (Previously Presented) The method of claim 56, wherein the proximal and distal curved sections have apexes that point in the same direction away from a longitudinal axis of the ablation probe.

58. (Previously Presented) The method of claim 57, wherein the mapping structure comprises a medial curved section having an apex that points in direction towards the longitudinal axis of the ablation probe.

59. (Previously Presented) The method of claim 37, wherein the mapping probe is disposed within the pulmonary vein while the one or more ablative elements are in the pulmonary vein.

60. (Newly Added) A probe for ablating tissue, comprising:

an outer elongate probe body including a distal ablative structure having an open helical architecture defining an interior space;

a lumen extending through the outer probe body, the lumen configured to slidably receive an inner elongate probe body, such that the inner elongate probe body can move independently of the distal ablative structure, the lumen having an exit port out which the inner probe body can extend within the interior space; and

one or more ablative elements mounted to the distal ablative structure, wherein the ablative structure is configured for engaging a portion of the pulmonary vein just distal to the ostium of the pulmonary vein, so that the one or more ablative elements are arranged to create a circumferential lesion within the pulmonary vein.

61. (Newly Added) The probe of claim 60, wherein the open helical structure is tapered.

62. (Newly Added) The probe of claim 60, wherein the exit port is proximal to the distal ablative structure.

63. (Newly Added) A probe assembly for ablating tissue, comprising:

an outer probe including an elongate probe body having a distal ablative structure, a lumen having an exit port, and one or more ablative elements mounted to the distal ablative structure, wherein the ablative structure is configured for engaging a portion of an anatomical vessel just distal to the ostium of the vessel, so that the one or more ablative elements are arranged to create a circumferential lesion within the anatomical vessel, wherein the distal ablative structure is an open helical structure; and

an inner probe configured to be slidably disposed within the lumen of the outer probe, the inner probe including an elongate probe body having a distal diagnostic structure configured to extend out the exit port, and one or more diagnostic elements mounted to the distal diagnostic structure.

64. (Newly Added) The probe assembly of claim 63, wherein the open helical structure is tapered.

65. (Newly Added) The probe assembly of claim 63, wherein the distal ablative structure is an open structure that forms an interior space, and the distal diagnostic structure is configured to extend within the interior space.

66. (Newly Added) The probe assembly of claim 63, wherein the anatomical vessel is a pulmonary vein.

67. (Newly Added) The probe assembly of claim 63, wherein the exit port is proximal to the distal ablative structure.